

Climate Change Handbook for Regional Water Planning: Federal-State Partnership Helps Water Managers Plan for Climate Change

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Once again, California steps to the forefront on adaptation of water resource management to climate change. DWR's new [Climate Change Handbook for Regional Water Planning](#) provides just the information that water managers have told me they need in order to deal with the changes they are encountering. So much has changed in the five years since I first engaged in this issue. At that point, water lawyers and policy people asked about whether climate change would affect water management. In the years since, much of the water community with whom I work no longer ask that question. The question has changed to how to deal with the changes that water managers encounter every year. Water planning has become much more difficult with the uncertainties that climate change has brought.

I first got involved in this issue in 2007, when I served at the Assembly Water, Parks & Wildlife Committee. In February, we held a hearing on climate change and water, which was the first time the Legislature started hearing about the water-energy nexus and its effect on climate. We learned how much research had been done on the climate change risks to water supply, at Lawrence-Livermore National Laboratory, Scripps Institution of Oceanography, and other University of California campuses.

Around that time, we also heard from the Merced Irrigation District (MID), which asked for our assistance with the U.S. Army Corps of Engineers. The Merced River, which MID manages, had seen its peak snow melt date move ahead 2 weeks in only the preceding decade. When MID asked for an adjustment to its flood graph, the Corps had responded that President Bush had said there was no climate change, so they were not authorized to work on those issues. I shared that story when I testified in Congress on climate change and water supply in May 2007.

That year also saw the Committee's chair, then-Assemblymember Lois Wolk, introduce the first water and climate change bill. That first bill, AB 224 Wolk, required existing water planning processes to consider the potential effects of climate change. At first, ACWA took an oppose-unless-amended position to delete any local water agency responsibility for considering climate change. As I staffed AB 224, I heard from many in the water community that they lacked sufficient information and there was too much uncertainty about how the climate might change. Over the course of 2007, however, ACWA switched to a support position for our climate change bill, but the bill ultimately did not pass.

In 2008, however, as part of a package of appropriations for water infrastructure, SB 1 X2 (Perata) adopted changes to the integrated regional water supply program including consideration of climate change. Specifically, the bill required: "Evaluation of the adaptability to climate change of water management systems in the region." I'm proud to have played a role in the final version of SB 1 X2, which the Governor signed. I consider this new *Handbook* a result of that requirement.

The *Handbook* overturns – correctly in my view – a fundamental principle of the last century of water planning – stationarity. Since 1902, we have based our analysis of a proposed project's

cost and benefits by looking at past hydrology to estimate future hydrology. The facts now have shown us that that's not a reliable analysis for our future water supply. There can be no precise calculation of the future. We cannot be as certain about our water future. So we need to prepare to manage for that uncertainty. The *Handbook* gives us the tools to move toward managing for the uncertainty that many in the water community expressed to me in 2007. Thank you, DWR!

I would like to get the conversation within the California water community about how we move forward in managing our precious and limited water resources, in light of climate change, with some questions:

- Has your agency created good tools it can use to adapt to climate change?
- Have you talked to other agencies in your region about how you might adapt together?
- Does the Legislature need to consider changes to our statutory structure to address climate change?

I look forward to our conversation.